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<u>L11</u>	L7 and mannanase.clm.	49	<u>L11</u>
<u>L10</u>	L7 and plant.clm.	34	<u>L10</u>
<u>L9</u>	L8 and mannanase.ab.	5	<u>L9</u>
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<u>L7</u>	plant and mannanase	182	<u>L7</u>
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<u>L5</u>	L4 and coffee	0	<u>L5</u>
<u>L4</u>	L3 and mannanase	0	<u>L4</u>
<u>L3</u>	rogers-john-\$.in.	170	<u>L3</u>
<u>L2</u>	Marraccini-pierre-\$.in.	0	<u>L2</u>
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NEWS	7	Apr 22	BIOSIS Gene Names now available in TOXCENTER
NEWS	8	Apr 22	Federal Research in Progress (FEDRIP) now available
NEWS	9	Jun 03	New e-mail delivery for search results now available
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NEWS	11	Jun 10	PCTFULL has been reloaded
NEWS	12	Jul 02	FOREGE no longer contains STANDARDS file segment
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NEWS	18	Aug 08	NTIS has been reloaded and enhanced
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NEWS	22	Aug 26	Sequence searching in REGISTRY enhanced
NEWS	23	Sep 03	JAPIO has been reloaded and enhanced
NEWS	24	Sep 16	Experimental properties added to the REGISTRY file
NEWS	25	Sep 16	CA Section Thesaurus available in CAPLUS and CA
NEWS	26	Oct 01	CASREACT Enriched with Reactions from 1907 to 1985
NEWS	27	Oct 21	EVENTLINE has been reloaded
NEWS	28	Oct 24	BEILSTEIN adds new search fields
NEWS	29	Oct 24	Nutraceuticals International (NUTRACEUT) now available on STN
NEWS	30	Oct 25	MEDLINE SDI run of October 8, 2002
NEWS	31	Nov 18	DKILIT has been renamed APOLLIT
NEWS	32	Nov 25	More calculated properties added to REGISTRY
NEWS	33	Dec 02	TIBKAT will be removed from STN
NEWS	34	Dec 04	CSA files on STN
NEWS	35	Dec 17	PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS	36	Dec 17	TOXCENTER enhanced with additional content
NEWS	37	Dec 17	Adis Clinical Trials Insight now available on STN
NEWS	38	Dec 30	ISMEC no longer available

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 NEWS 40 Jan 21 PHARMAML offering one free connect hour in February 2003
 NEWS 41 Jan 29 Simultaneous left and right truncation added to COMPENDEX,
 ENERGY, INSPEC
 NEWS 42 Feb 13 CANCERLIT is no longer being updated
 NEWS 43 Feb 24 METADEX enhancements
 NEWS 44 Feb 24 PCTGEN now available on STN
 NEWS 45 Feb 24 TEMA now available on STN
 NEWS 46 Feb 26 NTIS now allows simultaneous left and right truncation
 NEWS 47 Feb 26 PCTFULL now contains images
 NEWS 48 Mar 04 SDI PACKAGE for monthly delivery of multifile SDI results
 NEWS 49 Mar 19 APOLLIT offering free connect time in April 2003
 NEWS 50 Mar 20 EVENTLINE will be removed from STN
 NEWS 51 Mar 24 PATDPAFULL now available on STN
 NEWS 52 Mar 24 Additional information for trade-named substances without
 structures available in REGISTRY
 NEWS 53 Mar 24 Indexing from 1957 to 1966 added to records in CA/CAPLUS

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 CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),
 AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002

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=> s mannanase and coffee

L1 54 MANNANASE AND COFFEE

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L2 ANSWER 1 OF 36 CAPLUS COPYRIGHT 2003 ACS

TI Manufacture of concentrated ***coffee*** using galactomannanase for precipitation prevention

L2 ANSWER 2 OF 36 CAPLUS COPYRIGHT 2003 ACS

TI Manufacture of concentrated ***coffee*** free from precipitation

L2 ANSWER 3 OF 36 CAPLUS COPYRIGHT 2003 ACS

TI .beta.-Mannase from Penicillium multicolor, cDNA, yeast recombinant expression, and use in ***coffee*** beverage production

L2 ANSWER 4 OF 36 CAPLUS COPYRIGHT 2003 ACS

TI Manufacture of .beta.- ***mannanase*** and Bacillus polymyxa producing it

L2 ANSWER 5 OF 36 CAPLUS COPYRIGHT 2003 ACS

TI ***Mannanases*** from Sclerotium rolfsii: Characterization and industrial applications

L2 ANSWER 6 OF 36 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

TI ***Mannanases*** from Sclerotium rolfsii: Characterization and industrial applications.

L2 ANSWER 7 OF 36 CAPLUS COPYRIGHT 2003 ACS

TI Penicillium multicolor .beta.- ***mannanase*** and use in prevention of the ***coffee*** beverage precipitation

L2 ANSWER 8 OF 36 CAPLUS COPYRIGHT 2003 ACS

TI A germination-specific endo- ***mannanase*** of ***coffee*** beans and the gene encoding it and the development of mannan-utilizing organisms

L2 ANSWER 9 OF 36 CAPLUS COPYRIGHT 2003 ACS

TI Update on ***coffee*** biochemical compounds, protein and gene expression during bean maturation and in other tissues

L2 ANSWER 10 OF 36 AGRICOLA

DUPLICATE 1

TI Production of beta- ***mannanase*** and beta-mannosidase from Aspergillus awamori K4 and their properties.

L2 ANSWER 11 OF 36 AGRICOLA

DUPLICATE 2

TI Molecular and biochemical characterization of endo-beta- ***mannanases*** from germinating ***coffee*** (Coffea arabica) grains.

- L2 ANSWER 12 OF 36 CAPLUS COPYRIGHT 2003 ACS
 TI An endo-.beta.- ***mannanase*** of Coffea arabica and a cDNA encoding it and use of the enzyme in processing of ***coffee***
- L2 ANSWER 13 OF 36 AGRICOLA DUPLICATE 3
 TI Production, partial purification and properties of beta- ***mannanases*** obtained by solid substrate fermentation of spent soluble ***coffee*** wastes and copra paste using Aspergillus oryzae and Aspergillus niger.
- L2 ANSWER 14 OF 36 AGRICOLA DUPLICATE 4
 TI Hydrolysis of isolated ***coffee*** mannan and ***coffee*** extract by ***mannanases*** of Sclerotium rolfsii.
- L2 ANSWER 15 OF 36 CAPLUS COPYRIGHT 2003 ACS
 TI Bacterial ***mannanases*** and their gene sequence and industrial applications
- L2 ANSWER 16 OF 36 CAPLUS COPYRIGHT 2003 ACS
 TI Cloning, sequence, purification and industrial application of ***mannanase*** of Bacillus subtilis
- L2 ANSWER 17 OF 36 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 5
 TI Maximization by response surface methodology of beta- ***mannanase*** production from solid state fermentation of ***coffee*** wastes, using Aspergillus oryzae.
- L2 ANSWER 18 OF 36 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
 TI Hydrolysis of the galactomannans of ***coffee*** extract with immobilized beta- ***mannanase*** .
- L2 ANSWER 19 OF 36 CAPLUS COPYRIGHT 2003 ACS
 TI Isolation, properties and applications of a thermostable endo-.beta.-1,4-glucanase
- L2 ANSWER 20 OF 36 CAPLUS COPYRIGHT 2003 ACS
 TI Cloning and expression of heat-stable bacterial endoglucanase gene and use of enzyme in industrial processes
- L2 ANSWER 21 OF 36 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 6
 TI Purification and characterization of konjac glucomannan degrading enzyme from anaerobic human intestinal bacterium, Clostridium butyricum-Clostridium beijerinckii group.
- L2 ANSWER 22 OF 36 CAPLUS COPYRIGHT 2003 ACS
 TI ***Mannanase*** production by filamentous fungi in solid-state fermentation
- L2 ANSWER 23 OF 36 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
 TI Three alpha-galactosidase genes of Trichoderma reesei cloned by expression in yeast.
- L2 ANSWER 24 OF 36 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 7
 TI Effect of embryo and exogenous GA-3 on endospermic endo-beta-

mannanase activity of *Coffea arabica* L. during germination and early seedling growth.

- L2 ANSWER 25 OF 36 CAPLUS COPYRIGHT 2003 ACS
TI Hydrolysis of galactomannan in ***coffee*** extract with immobilized beta- ***mannanase*** .
- L2 ANSWER 26 OF 36 CAPLUS COPYRIGHT 2003 ACS
TI Purification and characterization of an endo-.beta.- ***mannanase*** from *Aeromonas* sp. F-25
- L2 ANSWER 27 OF 36 CAPLUS COPYRIGHT 2003 ACS
TI Microbial .beta.-1,4- ***mannanase*** production
- L2 ANSWER 28 OF 36 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 8
TI PURIFICATION AND CHARACTERIZATION OF A NOVEL EXO-BETA ***MANNANASE*** FROM *AEROMONAS-HYDROPHILA-SSP-ANAEROGENES* STRAIN F-25.
- L2 ANSWER 29 OF 36 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 9
TI BETA ***MANNANASE*** OF BACTERIA ISOLATED FROM NATURAL HABITATS.
- L2 ANSWER 30 OF 36 CAPLUS COPYRIGHT 2003 ACS
TI Enzymic hydrolysis, fine structure, and gelling interaction of legume-seed D-galacto-D-mannans
- L2 ANSWER 31 OF 36 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 10
TI CRYSTALLIZATION AND SOME PROPERTIES OF ***MANNANASE*** .
- L2 ANSWER 32 OF 36 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 11
TI STUDIES ON THE HEMI CELLULASES PART 3 PURIFICATION AND SOME PROPERTIES OF ***MANNANASE*** FROM *ASPERGILLUS-NIGER*.
- L2 ANSWER 33 OF 36 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 12
TI STUDIES ON THE ENZYME TREATMENT OF ***COFFEE*** -D BEANS PART 4 EFFECT OF SALT CONCENTRATION ON THE HYDROLYSIS OF MANNAN AND ***COFFEE*** -D SPENT GROUNDS BY ***MANNANASES*** .
- L2 ANSWER 34 OF 36 AGRICOLA
TI Studies on the enzyme treatment of ***coffee*** beans. IV. Effect of salt concentration on the hydrolysis of mannan and ***coffee*** spent grounds by ***mannanases***
- L2 ANSWER 35 OF 36 CAPLUS COPYRIGHT 2003 ACS
TI Enzymic treatment of ***coffee*** beans. I. Purification of ***mannanase*** of *Rhizopus niveus* and its action on ***coffee*** mannan
- L2 ANSWER 36 OF 36 CAPLUS COPYRIGHT 2003 ACS
TI Prevention of gel in frozen ***coffee*** extract

=> s 12 and cDNA

L3 6 L2 AND CDNA

=> s 12 and dna

L4 7 L2 AND DNA

=> d 14 1-7

L4 ANSWER 1 OF 7 AGRICOLA

AN 2002:1061 AGRICOLA

DN IND23236675

TI Molecular and biochemical characterization of endo-beta- ***mannanases***
from germinating ***coffee*** (Coffea arabica) grains.

AU Marraccini, P.; Rogers, W.J.; Allard, C.; Andre, M.L.; Caillet, V.;
Lacoste, N.; Lausanne, F.; Michaux, S.

SO Planta, June 2001. Vol. 213, No. 2. p. 296-308
Publisher: Berlin ; New York : Springer-Verlag, 1925-
CODEN: PLANAB; ISSN: 0032-0935

NTE Includes references

CY Germany

DT Article

FS Non-U.S. Imprint other than FAO

LA English

L4 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2003 ACS

AN 2001:729816 CAPLUS

DN 135:269293

TI A germination-specific endo- ***mannanase*** of ***coffee*** beans
and the gene encoding it and the development of mannan-utilizing organisms

IN Marraccini, Pierre; Rogers, John; Pridmore, Raymond David

PA Societe Des Produits Nestle S.A., Switz.

SO Eur. Pat. Appl., 21 pp.
CODEN: EPXXDW

DT Patent

LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	----	-----	-----
PI	EP 1138771	A1	20011004	EP 2000-201175	20000330
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	WO 2001075084	A2	20011011	WO 2001-EP1549	20010213
	WO 2001075084	A3	20020110		
	W: BR, CA, CN, JP, KR, MX, RU, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	EP 1272642	A2	20030108	EP 2001-933654	20010213
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
PRAI	EP 2000-201175	A	20000330		
	WO 2001-EP1549	W	20010213		

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2003 ACS

AN 2000:335567 CAPLUS

DN 133:2038

TI An endo-.beta.- ***mannanase*** of Coffea arabica and a cDNA encoding
it and use of the enzyme in processing of ***coffee***
IN Marraccini, Pierre; Rogers, John
PA Societe des Produits Nestle S.A., Switz.
SO PCT Int. Appl., 41 pp.
CODEN: PIXXD2

DT Patent

LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000028046	A1	20000518	WO 1999-EP8314	19991028
	W: BR, CA, CN, JP, KR, MX, RU, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,				
	PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	BR 9915148	A	20010807	BR 1999-15148	19991028
	EP 1131446	A1	20010912	EP 1999-959268	19991028
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				
	IE, FI				
	US 2002166145	A1	20021107	US 2001-850982	20010508
PRAI	EP 1998-203742	A	19981111		
	WO 1999-EP8314	W	19991028		

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2003 ACS

AN 1999:795986 CAPLUS

DN 132:46956

TI Bacterial ***mannanases*** and their gene sequence and industrial
applications

IN Kauppinen, Markus Sakari; Schulein, Martin; Schnorr, Kirk; Andersen, Lene
Nonboe; Bjornvad, Mads Eskelund

PA Novo Nordisk A/S, Den.

SO PCT Int. Appl., 242 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9964619	A2	19991216	WO 1999-DK314	19990610
	WO 9964619	A3	20000302		
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,				
	DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,				
	JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,				
	MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,				
	TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ,				
	MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,				
	ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,				
	CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2331199	AA	19991216	CA 1999-2331199	19990610
	BR 9911086	A	20010220	BR 1999-11086	19990610
	EP 1086211	A2	20010328	EP 1999-955504	19990610
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				
	IE, FI				
PRAI	US 1998-111256	A	19980610		

DK 1998-1340	A	19981020
DK 1998-1341	A	19981020
US 1998-105970P	P	19981028
US 1998-106054P	P	19981028
DK 1998-1725	A	19981223
DK 1999-306	A	19990305
DK 1999-307	A	19990305
DK 1999-308	A	19990305
DK 1999-309	A	19990305
US 1999-123543P	P	19990309
US 1999-123623P	P	19990310
US 1999-123641P	P	19990310
US 1999-123642P	P	19990311
WO 1999-DK314	W	19990610

L4 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2003 ACS

AN 1999:795946 CAPLUS

DN 132:32683

TI Cloning, sequence, purification and industrial application of
mannanase of Bacillus subtilis

IN Sreekrishna, Kotikanyadanam; Johnstone, Kevin; Saunders, Charles; Bettiol, Jean-luc

PA Novo Nordisk A/S, Den.

SO PCT Int. Appl., 56 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9964573	A1	19991216	WO 1999-DK299	19990607
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	JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,				
	MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,				
	TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD,				
	RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,				
	ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,				
	CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 6060299	A	20000509	US 1998-95163	19980610
	AU 9942562	A1	19991230	AU 1999-42562	19990607
	EP 1086210	A1	20010328	EP 1999-955498	19990607
	R:				
	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				
	IE, SI, LT, LV, FI, RO				
	JP 2002517232	T2	20020618	JP 2000-553563	19990607
PRAI	US 1998-95163	A	19980610		
	WO 1999-DK299	W	19990607		

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2003 ACS

AN 1998:543152 CAPLUS

DN 129:172455

TI Isolation, properties and applications of a thermostable
endo-.beta.-1,4-glucanase

IN Andersen, Lene Nonboe; Bjornvad, Mads Eskelund; Schulein, Martin

PA Novo Nordisk A/S, Den.
SO PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9833895	A1	19980806	WO 1998-DK39	19980130
	W:		AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM		
	RW:		GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG		
	AU 9856521	A1	19980825	AU 1998-56521	19980130
	EP 972016	A1	20000119	EP 1998-900849	19980130
	R:		AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI		
	JP 2001504352	T2	20010403	JP 1998-532468	19980130
PRAI	DK 1997-114	A	19970131		
	DK 1997-853	A	19970711		
	WO 1998-DK39	W	19980130		

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2003 ACS
AN 1998:479608 CAPLUS
DN 129:91432
TI Cloning and expression of heat-stable bacterial endoglucanase gene and use of enzyme in industrial processes
IN Schulein, Martin; Bjornvad, Mads Eskelund; Norrevang, Iben Angelica
PA Novo Nordisk A/S, Den.
SO PCT Int. Appl., 53 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9828410	A1	19980702	WO 1997-DK583	19971219
	W:		AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM		
	RW:		GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG		
	AU 9878735	A1	19980717	AU 1998-78735	19971219
	EP 956348	A1	19991117	EP 1997-948752	19971219
	R:		AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI		
	CN 1240478	A	20000105	CN 1997-180775	19971219
	BR 9713780	A	20000321	BR 1997-13780	19971219
	US 6043075	A	20000328	US 1997-995280	19971219
	JP 2001507221	T2	20010605	JP 1998-528260	19971219

PRAI DK 1996-1483 A 19961220
WO 1997-DK583 W 19971219
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d 14 6-7

L4 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2003 ACS
AN 1998:543152 CAPLUS
DN 129:172455
TI Isolation, properties and applications of a thermostable
endo-.beta.-1,4-glucanase
IN Andersen, Lene Nonboe; Bjornvad, Mads Eskelund; Schulein, Martin
PA Novo Nordisk A/S, Den.
SO PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9833895	A1	19980806	WO 1998-DK39	19980130
	W:				
					AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
					DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG,
					KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
					NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
					UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
	RW:				GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI,
					FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM,
					GA, GN, ML, MR, NE, SN, TD, TG
	AU 9856521	A1	19980825	AU 1998-56521	19980130
	EP 972016	A1	20000119	EP 1998-900849	19980130
	R:				AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI
	JP 2001504352	T2	20010403	JP 1998-532468	19980130
PRAI	DK 1997-114	A	19970131		
	DK 1997-853	A	19970711		
	WO 1998-DK39	W	19980130		

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2003 ACS
AN 1998:479608 CAPLUS
DN 129:91432
TI Cloning and expression of heat-stable bacterial endoglucanase gene and use
of enzyme in industrial processes
IN Schulein, Martin; Bjornvad, Mads Eskelund; Norrevang, Iben Angelica
PA Novo Nordisk A/S, Den.
SO PCT Int. Appl., 53 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9828410	A1	19980702	WO 1997-DK583	19971219
	W:				AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,

DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG,
 KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
 NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
 UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI,
 FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM,
 GA, GN, ML, MR, NE, SN, TD, TG

AU 9878735	A1	19980717	AU 1998-78735	19971219
EP 956348	A1	19991117	EP 1997-948752	19971219
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
CN 1240478	A	20000105	CN 1997-180775	19971219
BR 9713780	A	20000321	BR 1997-13780	19971219
US 6043075	A	20000328	US 1997-995280	19971219
JP 2001507221	T2	20010605	JP 1998-528260	19971219
PRAI DK 1996-1483	A	19961220		
WO 1997-DK583	W	19971219		

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d 14 6-7 ab

L4 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2003 ACS

AB This invention relates to an enzyme prepn. having endo-.beta.-1,4-glucanase activity which has optimum activity at a temp. of at least 90.degree.C, preferably of at least 95.degree.C, and more preferably of at least 100.degree.C. The prepn. may be obtainable from or endogenous to a strain belonging to Archaea, preferably to the phylum Euryarchaeota, and more preferably to the subdivision Thermococcales and to the species *Pyrococcus furiosus*. In its second aspect, the invention relates to a ***DNA*** construct comprising a ***DNA*** sequence encoding an enzyme having endo-.beta.-1,4-glucanase activity. The invention also provides a method of producing an enzyme exhibiting cellulolytic activity, which comprises culturing the cell under conditions permitting the prodn. of the enzyme, and recovering the enzyme from the culture. Industrial application of the enzyme are also described including applications in the textile industry.

L4 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2003 ACS

AB An enzyme prepn. comprising an endo-1,4-.beta.-glucanase having optimum activity at a temp. above 85.degree. which is endogenous to a strain belonging to the Gram pos. bacteria, e.g., the strain *Dictyoglomus* DSM 6262, or which exhibits an activity towards CM-cellulose (CMC assay) at 70.degree. and pH 10 which is higher than 50% relative to the activity at 70.degree. and the optimum pH; and a ***DNA*** construct comprising a ***DNA*** sequence encoding the endo-1,4-.beta.-glucanase are disclosed.

The enzyme is useful, e.g., in the textile industry for improving the properties of cellulosic fibers or fabric or for providing a stone-washed look of denim; or in industrial cleaning processes; or in heat extruded polymeric material; or in the conversion of biomass to sugars; or in the prodn. of alc.; or for predigestion of, e.g., grains used in feed prodn.; or in the prodn. of instant ***coffee*** or similar extn. processes. The *Dictyoglomus* cellulase gene was cloned, sequenced, and expressed in *Bacillus subtilis*. The recombinant enzyme was used for biopolishing cotton fabric.

=> FIL STNGUIDE

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	29.65	29.86
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-1.30	-1.30

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LAST RELOADED: Mar 31, 2003 (20030331/UP).

=> file agricola biosis embase caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.36	30.22
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-1.30

FILE 'AGRICOLA' ENTERED AT 18:34:15 ON 02 APR 2003

FILE 'BIOSIS' ENTERED AT 18:34:15 ON 02 APR 2003
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=> s mannanase and plant and cdna
L5 38 MANNANASE AND PLANT AND CDNA

=> duplicate remove l5
DUPLICATE PREFERENCE IS 'AGRICOLA, BIOSIS, EMBASE, CAPLUS'
KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n
PROCESSING COMPLETED FOR L5
L6 25 DUPLICATE REMOVE L5 (13 DUPLICATES REMOVED)

=> d l6 1-5

L6 ANSWER 1 OF 25 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 2002:248610 BIOSIS
DN PREV200200248610
TI Cloning and expression in Pichia pastoris of a blue mussel (Mytilus edulis) beta- ***mannanase*** gene.
AU Xu, Bingze; Sellos, Daniel; Janson, Jan-Christer (1)

CS (1) Center for Surface Biotechnology, Biomedical Center, Uppsala University, Husargatan 3, SE-751 23, Uppsala: Jan-Christer.Janson@ytbioteknik.uu.se Sweden
SO European Journal of Biochemistry, (March, 2002) Vol. 269, No. 6, pp. 1753-1760. <http://www.blackwell-science.com/cgiilib/jnlpage.asp?journal=ejb&file=ejb&page=aims>. print.
ISSN: 0014-2956.
DT Article
LA English

L6 ANSWER 2 OF 25 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE
1

AN 2003:66317 BIOSIS

DN PREV200300066317

TI Variation in its C-terminal amino acids determines whether endo-beta-***mannanase*** is active or inactive in ripening tomato fruits of different cultivars.

AU Bourgault, Richard; Bewley, J. Derek (1)

CS (1) Department of Botany, University of Guelph, Guelph, ON, N1G 2W1, Canada: dbewley@uoguelph.ca Canada

SO Plant Physiology (Rockville), (November 2002, 2002) Vol. 130, No. 3, pp. 1254-1262. print.
ISSN: 0032-0889.

DT Article

LA English

L6 ANSWER 3 OF 25 CAPLUS COPYRIGHT 2003 ACS

AN 2002:703092 CAPLUS

DN 138:51760

TI Characterisation of an endo-(1,4)-.beta.- ***mannanase*** (LeMAN4) expressed in ripening tomato fruit

AU Carrington, C. M. Sean; Vendrell, Miguel; Dominguez-Puigjaner, Eva

CS Departamento de Fisiologia y Biodiversidad Molecular, CSIC, Instituto de Biologia Molecular de Barcelona, Barcelona, 08034, Spain

SO Plant Science (Shannon, Ireland) (2002), 163(3), 599-606
CODEN: PLSCE4; ISSN: 0168-9452

PB Elsevier Science Ireland Ltd.

DT Journal

LA English

RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 25 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE
2

AN 2002:382709 BIOSIS

DN PREV200200382709

TI beta-Mannosidase (EC 3.2.1.25) activity during and following germination of tomato (*Lycopersicon esculentum* Mill.) seeds. Purification, cloning and characterization.

AU Mo, Beixin; Bewley, J. Derek (1)

CS (1) Department of Botany, University of Guelph, Guelph, ON, N1G 2W1: dbewley@uoguelph.ca Canada

SO Planta (Berlin), (May, 2002) Vol. 215, No. 1, pp. 141-152. print.
ISSN: 0032-0935.

DT Article

LA English

L6 ANSWER 5 OF 25 CAPLUS COPYRIGHT 2003 ACS
 AN 2001:729816 CAPLUS
 DN 135:269293
 TI A germination-specific endo- ***mannanase*** of coffee beans and the
 gene encoding it and the development of mannan-utilizing organisms
 IN Marraccini, Pierre; Rogers, John; Pridmore, Raymond David
 PA Societe Des Produits Nestle S.A., Switz.
 SO Eur. Pat. Appl., 21 pp.
 CODEN: EPXXDW
 DT Patent
 LA French
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1138771	A1	20011004	EP 2000-201175	20000330
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	WO 2001075084	A2	20011011	WO 2001-EP1549	20010213
	WO 2001075084	A3	20020110		
	W: BR, CA, CN, JP, KR, MX, RU, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	EP 1272642	A2	20030108	EP 2001-933654	20010213
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
PRAI	EP 2000-201175	A	20000330		
	WO 2001-EP1549	W	20010213		
RE.CNT	6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT				

=> d 16 6-10

L6 ANSWER 6 OF 25 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
 AN 2001:313916 BIOSIS
 DN PREV200100313916
 TI The cel4 gene of Agaricus bisporus encodes a beta- ***mannanase***
 AU Tang, C. M.; Waterman, L. D.; Smith, M. H.; Thurston, C. F. (1)
 CS (1) Division of Life Sciences, King's College, London, 150 Stamford St.,
 London, SE1 8WA: chris.thurston@kcl.ac.uk UK
 SO Applied and Environmental Microbiology, (May, 2001) Vol. 67, No. 5, pp.
 2298-2303. print.
 ISSN: 0099-2240.
 DT Article
 LA English
 SL English

L6 ANSWER 7 OF 25 CAPLUS COPYRIGHT 2003 ACS
 AN 2002:406682 CAPLUS
 DN 137:60381
 TI Update on coffee biochemical compounds, protein and gene expression during
 bean maturation and in other tissues
 AU Marraccini, P.; Allard, C.; Andre, M.-L.; Courjault, C.; Gaborit, C.;
 Lacoste, N.; Meunier, A.; Michaux, S.; Petit, V.; Priyono, P.; Rogers, J.
 W.; Deshayes, A.
 CS Plant Science and Technology, Nestle Research Center Tours, Tours Cedex 2,

37097, Fr.
 SO Colloque Scientifique International sur le Cafe (2001), 19th, 593-604
 CODEN: CICRD8
 PB Association Scientifique Internationale du Cafe
 DT Journal; (computer optical disk)
 LA English
 RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 8 OF 25 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE
 3
 AN 2001:384605 BIOSIS
 DN PREV200100384605
 TI Molecular and biochemical characterization of endo-beta- ***mannanases***
 from germinating coffee (Coffea arabica) grains.
 AU Marraccini, Pierre (1); Rogers, W. John; Allard, Cyril; Andre,
 Marie-Laure; Caillet, Victoria; Lacoste, Nicolas; Lausanne, Francoise;
 Michaux, Stephane
 CS (1) Department of Plant Science, Nestle Research Centre, 101 Avenue
 Gustave-Eiffel, 37097, Tours Cedex 2: pierre.marraccini@rdto.nestle.com
 France
 SO Planta (Berlin), (June, 2001) Vol. 213, No. 2, pp. 296-308. print.
 ISSN: 0032-0935.
 DT Article
 LA English
 SL English

L6 ANSWER 9 OF 25 CAPLUS COPYRIGHT 2003 ACS
 AN 2000:335567 CAPLUS
 DN 133:2038
 TI An endo-.beta.- ***mannanase*** of Coffea arabica and a ***cDNA***
 encoding it and use of the enzyme in processing of coffee
 IN Marraccini, Pierre; Rogers, John
 PA Societe des Produits Nestle S.A., Switz.
 SO PCT Int. Appl., 41 pp.
 CODEN: PIXXD2
 DT Patent
 LA French
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000028046	A1	20000518	WO 1999-EP8314	19991028
	W: BR, CA, CN, JP, KR, MX, RU, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,				
	PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	BR 9915148	A	20010807	BR 1999-15148	19991028
	EP 1131446	A1	20010912	EP 1999-959268	19991028
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				
	IE, FI				
	US 2002166145	A1	20021107	US 2001-850982	20010508
PRAI	EP 1998-203742	A	19981111		
	WO 1999-EP8314	W	19991028		

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 10 OF 25 AGRICOLA DUPLICATE 4
 AN 2001:19640 AGRICOLA

DN IND22294935
 TI A germination-specific endo-beta- ***mannanase*** gene is expressed the
 in the micropylar endosperm cap of tomato seeds.
 AU Nonogaki, H.; Gee, O.H.; Bradford, K.J.
 AV DNAL (450 P692)
 SO Plant physiology, Aug 2000. Vol. 123, No. 4. p. 1235-1245
 Publisher: Rockville, MD : American Society of Plant Physiologists, 1926-
 CODEN: PLPHAY; ISSN: 0032-0889
 NTE Includes references
 CY Maryland; United States
 DT Article; Conference
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

=> d 16 11-15

L6 ANSWER 11 OF 25 CAPLUS COPYRIGHT 2003 ACS
 AN 2001:11116 CAPLUS
 DN 135:103193
 TI Mapping of ***cDNA*** clones on contig of Chlorella chromosome I
 AU Maki, Sinya; Ohta, Yutaka; Noutoshi, Yoshiteru; Fujie, Makoto; Usami,
 Shohji; Yamada, Takashi
 CS Department of Molecular Biotechnology, Graduate School of Advanced
 Sciences of Matter, Hiroshima University, Higashi-Hiroshima, 739-8527,
 Japan
 SO Journal of Bioscience and Bioengineering (2000), 90(4), 431-436
 CODEN: JBBIF6; ISSN: 1389-1723
 PB Society for Bioscience and Bioengineering, Japan
 DT Journal
 LA English
 RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 12 OF 25 CAPLUS COPYRIGHT 2003 ACS
 AN 2000:647178 CAPLUS
 DN 134:83568
 TI Gene expression prior to radicle emergence in imbibed tomato seeds
 AU Bradford, K. J.; Chen, F.; Cooley, M. B.; Dahal, P.; Downie, B.; Fukunaga,
 K. K.; Gee, O. H.; Gurusinge, S.; Mella, R. A.; Nonogaki, H.; Wu, C-T.;
 Yang, H.; Yim, K-O.
 CS Department of Vegetable Crops, University of California, Davis, CA,
 95616-8631, USA
 SO Seed Biology: Advances and Applications, Proceedings of the International
 Workshop on Seeds, 6th, Merida, Mexico, Jan., 1999 (2000), Meeting Date
 1999, 231-251. Editor(s): Black, Michael; Bradford, Kent J.;
 Vazquez-Ramos, Jorge. Publisher: CABI Publishing, Wallingford, UK.
 CODEN: 69AJEY
 DT Conference
 LA English
 RE.CNT 88 THERE ARE 88 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 13 OF 25 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
 AN 2003:75943 BIOSIS
 DN PREV200300075943
 TI Molecular cloning of a germination-specific ***mannanase***

cDNA from tomato seeds.

AU Nonogaki, Hiroyuki (1); Gee, Oliver H. (1); Bradford, Kent J. (1)

CS (1) Dept. of Vegetable Crops, University of California, Davis, Davis, CA, USA: nonogaki@vegmail.ucdavis.edu USA

SO Plant Biology (Rockville), (2000) Vol. 2000, pp. 50. print.

Meeting Info.: Annual Meeting of the American Society of Plant Physiologists San Diego, California, USA July 15-19, 2000 American Society of Plant Physiologists (ASPP)

DT Conference

LA English

L6 ANSWER 14 OF 25 CAPLUS COPYRIGHT 2003 ACS

AN 1999:577047 CAPLUS

DN 131:210063

TI Fluorescence polarization screening method for gene-expressed biological compounds

IN Kongsbak, Lars; Jorgensen, Kristian Skovgaard; Valbjorn, Jesper; Jorgensen, Christel Thea; Husum, Tommy Lykke; Ernst, Steffen; Moller, Soren

PA Novo Nordisk A/S, Den.

SO PCT Int. Appl., 74 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9945143	A2	19990910	WO 1999-DK112	19990305
	WO 9945143	A3	19991021		
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	CA 2322488	AA	19990910	CA 1999-2322488	19990305
	AU 9926122	A1	19990920	AU 1999-26122	19990305
	EP 1058738	A2	20001213	EP 1999-906092	19990305
	EP 1058738	B1	20011114		
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI			
	AT 208828	E	20011115	AT 1999-906092	19990305
	EP 1156122	A2	20011121	EP 2001-118580	19990305
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI			
	JP 2002505114	T2	20020219	JP 2000-534674	19990305
	ES 2168848	T3	20020616	ES 1999-906092	19990305
PRAI	DK 1998-308	A	19980306		
	EP 1999-906092	A3	19990305		
	WO 1999-DK112	W	19990305		

L6 ANSWER 15 OF 25 CAPLUS COPYRIGHT 2003 ACS

AN 1999:326062 CAPLUS

DN 130:333738

TI Methods for controlling the ripening of fruit using a ***cDNA*** encoding endo-1,4-.beta.- ***mannanase***

IN Bewley, J. Derek
PA University of Guelph, Can.
SO PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9924588	A1	19990520	WO 1998-CA1034	19981105
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	AU 9910169	A1	19990531	AU 1999-10169	19981105
PRAI	US 1997-64890P	P	19971107		
	WO 1998-CA1034	W	19981105		

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d 16 15 ab

L6 ANSWER 15 OF 25 CAPLUS COPYRIGHT 2003 ACS
AB The invention provides methods for controlling the ripening of fruit, preferably tomato, using a ***cDNA*** encoding endo-1,4-.beta.- ***mannanase*** . A ***cDNA*** clone obtained from either a fruit or the seed of a fruit is used for the prepn. of an antisense sequence which can be inserted into the genome of a fruit for blocking or significantly inhibiting the expression of endo-1,4-.beta.- ***mannanase*** . A method is also provided for the ripening of fruit whereby a promoter for the endo-1,4-.beta.- ***mannanase*** gene is inserted into the genome of the fruit so that the gene may be over-expressed in order to expedite the rate of fruit ripening.

=> d 16 16-20

L6 ANSWER 16 OF 25 CAPLUS COPYRIGHT 2003 ACS
AN 1998:712366 CAPLUS
DN 129:312835
TI Piromyces equi phenolic acid esterase sequence and applications
IN Fillingham, Ian John; Hazelwood, Geoffrey Peter; Gilbert, Harry John
PA The Babraham Institute, UK; The University of Newcastle-Upon-Tyne
SO PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9846768	A2	19981022	WO 1998-EP2080	19980409

WO 9846768 A3 19990121
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG
GB 2324302 A1 19981021 GB 1997-7540 19970414
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO
BR 9808554 A 20000523 BR 1998-8554 19980409
JP 2001523090 T2 20011120 JP 1998-543460 19980409
PRAI GB 1997-7540 A 19970414
WO 1998-EP2080 W 19980409

L6 ANSWER 17 OF 25 AGRICOLA DUPLICATE 5

AN 1998:15003 AGRICOLA

DN IND20618877

TI Molecular cloning of a ***cDNA*** encoding a (1 leads to 4)-beta-mannan endohydrolase from the seeds of germinated tomato (*Lycopersicon esculentum*).

AU Bewley, J.D.; Burton, R.A.; Morohashi, Y.; Fincher, G.B.

CS University of Guelph, Guelph, Ontario, Canada.

AV DNAL (450 P693)

SO Planta, Dec 1997. Vol. 203, No. 4. p. 454-459

Publisher: Berlin ; New York : Springer-Verlag, 1925-

CODEN: PLANAB; ISSN: 0032-0935

NTE Includes references

CY Germany

DT Article

FS Non-U.S. Imprint other than FAO

LA English

L6 ANSWER 18 OF 25 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

AN 1997:381883 BIOSIS

DN PREV199799681086

TI A ***cDNA*** encoding an endo-beta- ***mannanase*** from germinated tomato seeds.

AU Bewley, J. D. (1); Burton, R. A.; Morohashi, Y.; Nonogaki, H.; Fincher, G. B.

CS (1) Dep. Bot., Univ. Guelph, Guelph, ON Canada

SO Plant Physiology (Rockville), (1997) Vol. 114, No. 3 SUPPL., pp. 292.

Meeting Info.: PLANT BIOLOGY '97: 1997 Annual Meetings of the American Society of Plant Physiologists and the Canadian Society of Plant Physiologists, Japanese Society of Plant Physiologists and the Australian Society of Plant Physiologists Vancouver, British Columbia, Canada August 2-6, 1997

ISSN: 0032-0889.

DT Conference; Abstract; Conference

LA English

L6 ANSWER 19 OF 25 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

AN 1997:115918 BIOSIS

DN PREV199799415121
TI Expression of CEL2 and CEL4, two proteins from Agaricus bisporus with
similarity to fungal cellobiohydrolase I and beta- ***mannanase*** ,
respectively, is regulated by the carbon source.
AU Yague, Ernesto (1); Mehak-Zunic, Milena; Morgan, Louis; Wood, David A.;
Thurston, Christopher F.
CS (1) Dep. Exp. Pathol., UMDS, Guy's Hosp., London Bridge, London SE1 9RT UK
SO Microbiology (Reading), (1997) Vol. 143, No. 1, pp. 239-244.
ISSN: 1350-0872.
DT Article
LA English

L6 ANSWER 20 OF 25 AGRICOLA DUPLICATE 6
AN 97:25449 AGRICOLA
DN IND20557636
TI Evidence that Piromyces gene family encoding endo-1,4- ***mannanases***
arose through gene duplication.
AU Millward-Sadler, S.J.; Hall, J.; Black, G.W.; Hazlewood, G.P.; Gilbert,
H.J.
CS University of Newcastle upon Tyne, Newcastle upon Tyne, UK.
SO FEMS microbiology letters, Aug 1, 1996. Vol. 141, No. 2/3. p. 183-188
Publisher: Amsterdam, The Netherlands : Elsevier Science B.V.
CODEN: FMLED7; ISSN: 0378-1097
NTE Includes references
CY Netherlands
DT Article
FS Non-U.S. Imprint other than FAO
LA English

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L6 ANSWER 21 OF 25 CAPLUS COPYRIGHT 2003 ACS
AN 1996:749276 CAPLUS
DN 126:28390
TI Molecular characterization of side-chain cleaving hemicellulases of
Trichoderma reesei
AU Margolles-Clark, Emilio
CS VTT Biotechnology and Food Research, Department of Biosciences, Division
of Genetics, University of Helsinki, Helsinki, Finland
SO VTT Publications (1996), 276, 123pp
CODEN: VTTPEY; ISSN: 1235-0621
PB Valtion Teknillinen Tutkimuskeskus
DT Journal
LA English

L6 ANSWER 22 OF 25 AGRICOLA DUPLICATE 7
AN 97:60850 AGRICOLA
DN IND20585908
TI Three alpha-galactosidase genes of Trichoderma reesei cloned by expression
in yeast.
AU Margolles-Clark, E.; Tenkanen, M.; Luonteri, E.; Penttila, M.
CS VTT Biotechnology and Food Research, Espoo, Finland.
SO European journal of biochemistry, Aug 1996. Vol. 240, No. 1. p. 104-111
Publisher: Berlin : Springer-Verlag Berlin.
CODEN: EJBCAI; ISSN: 0014-2956
NTE Includes references

CY Germany
DT Article
FS Non-U.S. Imprint other than FAO
LA English

L6 ANSWER 23 OF 25 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 1996:35147 BIOSIS
DN PREV199698607282
TI The conserved noncatalytic 40-residue sequence in cellulases and
hemicellulases from anaerobic fungi functions as a protein docking domain.
AU Fanutti, Cristina; Ponyi, Tamas; Black, Gary W.; Hazlewood, Geoffrey P.;
Gilbert, Harry J. (1)
CS (1) Dep. Biological Nutritional Sci., Univ. Newcastle upon Tyne, Newcastle
upon Tyne NE1 7RU UK
SO Journal of Biological Chemistry, (1995) Vol. 270, No. 49, pp. 29314-29322.
ISSN: 0021-9258.
DT Article
LA English

L6 ANSWER 24 OF 25 CAPLUS COPYRIGHT 2003 ACS
AN 1995:340825 CAPLUS
DN 122:155214
TI Aspergillus ***mannanase***, its manufacture with recombinant cells,
and its use in pulp bleaching, food manufacture, and oil production
IN Christgau, Stephan; Kofod, Lene Venke; Andersen, Lene Nonboe; Kauppinen,
Sakari; Heldt-Hansen, Hans Peter; Dalboe, Henrik
PA Novo Nordisk A/S, Den.
SO PCT Int. Appl., 44 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9425576	A1	19941110	WO 1994-DK174	19940428
	W: AU, BB, BG, BR, BY, CA, CN, CZ, FI, HU, JP, KP, KR, KZ, LK, LV, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SK, UA, US, UZ, VN				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
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	R: DE, DK, ES, FR, GB, IT, NL, SE				
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PRAI	DK 1993-486		19930430		
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L6 ANSWER 25 OF 25 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 1994:455364 BIOSIS
DN PREV199497468364
TI Expression cloning, purification and characterization of a beta-1,4-
mannanase from Aspergillus aculeatus.
AU Christgau, Stephan; Kauppinen, Sakari; Vind, Jesper; Kofod, Lene V.;
Dalboe, Henrik
CS GeneExpress, Novo Nordisk A/S, Symbion, Fruebjergvej 3, DK-2100 Copenhagen
O Denmark
SO Biochemistry and Molecular Biology International, (1994) Vol. 33, No. 5,

pp. 917-925.
DT Article
LA English

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